AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Serial Number: 09/476678

Filing Date: December 30, 1999

Title: SYSTEM AND METHOD FOR ADAPTIVELY DESKEWING PARALLEL DATA SIGNALS RELATIVE TO A CLOCK

REMARKS

This is in response to the Office Action mailed on <u>December 5, 2003</u>, and the references cited therewith.

No claims are amended, canceled, or added; as a result, claims 1-44 remain pending in this application.

Information Disclosure Statement

Applicant respectfully requests that a copy of the 1449 Form, listing all references that are submitted herewith, marked as being considered and initialed by the Examiner, be returned with the next official communication.

§103 Rejection of the Claims

Claim 25 was rejected under 35 USC § 103(a) as being unpatentable over Sakamoto et al. (U.S. Patent No. 6,557,110 B2, hereinafter "Sakamoto") in view of Hassoun et al. (U.S. Publication Number 2001/0033630 A1, hereinafter "Hassoun").

The Examiner has the burden under 35 U.S.C. §103 to establish a *prima facie* case of obviousness. *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). To do that the Examiner must show that some objective teaching in the prior art or some knowledge generally available to one of ordinary skill in the art would lead an individual to combine the relevant teaching of the references. *Id*.

The *Fine* court stated that:

Obviousness is tested by "what the combined teaching of the references would have suggested to those of ordinary skill in the art." *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 878 (CCPA 1981)). But it "cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination." *ACS Hosp. Sys.*, 732 F.2d at 1577, 221 USPQ at 933. And "teachings of references can be combined *only* if there is some suggestion or incentive to do so." *Id.* (emphasis in original).

The M.P.E.P. adopts this line of reasoning, stating that

In order for the Examiner to establish a *prima facie* case of obviousness, three base criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one

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of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *M.P.E.P.* § 2142 (citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed.Cir. 1991)).

An invention can be obvious even though the suggestion to combine prior art teachings is not found in a specific reference. *In re Oetiker*, 24 USPQ2d 1443 (Fed. Cir. 1992). At the same time, however, although it is not necessary that the cited references or some other piece of prior art specifically suggest making the combination, there must be some teaching somewhere which provides the suggestion or motivation to combine prior art teachings and applies that combination to solve the same or similar problem which the claimed invention addresses. One of ordinary skill in the art will be presumed to know of any such teaching. (See, e.g., *In re Nilssen*, 851 F.2d 1401, 1403, 7 USPQ2d 1500, 1502 (Fed. Cir. 1988) and *In re Wood*, 599 F.2d 1032, 1037, 202 USPQ 171, 174 (CCPA 1979)).

Applicant respectfully submits that the Office Action does not make out a *prima facie* case of obviousness for the following two reasons: (1) even if combined, the cited references fail to teach or suggest all of the elements of applicant's claimed invention; and (2) there is no suggestion to combine the cited references because a suggestion to combine must come from the prior art and not from Applicant's specification or impermissible hindsight.

Regarding independent claim 25, the Office Action asserts that the combination of Sakamoto and Hassoun teaches all the elements of claims 25 and 26.

Sakamoto describes a channel-to-channel skew compensation apparatus which uses shift registers to add delay to parallel channels. Sakamoto describes a number of mechanisms for finding the middle of the frame and adjusting each channel to adjust for skew between channels. Sakamoto does acknowledge that does not adjust automatically to changes in skew between channels. Instead, Sakamoto suggests that it is "desireable to periodically check channel—to-channel skewing so that check channel—to-channel skewing can be compensated even if the check channel—to-channel skewing varies." Sakamoto, col. 14, lines 62-64. There is no mention of jitter, or of compensating for jitter, just an admonition that one might want to periodically check channel—to-channel skewing.

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Hassoun does describe the use of a filter to filter jitter when determining whether to increase or decrease propagation delay in a delay lock loop. The Examiner has failed, however, to show a teaching or suggestion in either Skamoto or Hassoun which would lead one to apply the delay lock loop jitter filter of Hassoun to the circuit of Sakamoto. This is especially the case since Sakamoto does not even mention that jitter can be a problem. One reason is that Sakamoto decides reference timing as a function of the frame signals SF(1) to SF(n). This is a different approach than that used by Applicant..

In addition, Applicant describes, and claims in claim 26, adaptive deskewing. As noted above, Sakamoto does not deskew adaptively. Instead, the circuit must be retrained periodically.

Applicant respectfully submits that the Office Action does not make out a *prima facie* case of obviousness for the following two reasons: (1) even if combined, the cited references fail to teach or suggest all of the elements of applicant's claimed invention; and (2) there is no suggestion to combine the cited references. As noted above, a suggestion to combine must come from the prior art and not from Applicant's specification or impermissible hindsight.

Reconsideration and allowance of all claims is respectfully requested.